

**No. 10-2007 MONTHLY PACIFIC ENSO DISCUSSION FOR MICRONESIA
AND AMERICAN SAMOA**

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The Pacific ENSO Applications Center (PEAC) disseminated its third quarter 2007 newsletter (refer to <http://www.soest.hawaii.edu/MET/Enso.html>). The fourth quarter newsletter will soon be complete. The Climate Prediction Center (CPC) stated the following in its October 11, 2007 *ENSO Diagnostic Discussion* (<http://www.cpc.ncep.noaa.gov>): **“La Niña will likely continue into early 2008.”** In addition, the CPC noted: “La Niña conditions strengthened during September 2007, as negative SST anomalies along the equator expanded westward and now extend from 170°E to the South American coast.” SSTs were 0.5°C to 1.0°C below average near the International Date Line. In addition, below-average upper-ocean heat content in the central and eastern equatorial Pacific, stronger than average low-level easterly winds in the central equatorial Pacific, and enhanced convection over the far western Pacific were observed. CPC stated: “Collectively, these oceanic and atmospheric conditions reflect a strengthening of La Niña.”

Nearly all of the latest climate forecast models predict a continued pattern of below-average equatorial SSTs in the central Pacific into early 2008.

Weak La Niña conditions are consistent with the observed atmospheric patterns in the western North Pacific. For example, tropical cyclone activity to-date has been below normal and displaced to the north and west. Likewise, monsoon activity has been constrained to the western part of the basin and the monsoon trough has been reverse-oriented (oriented from the northeast to the southwest). Rainfall activity has shown high month-to-month variability, a typical characteristic of weak La Niña conditions.

In September, the South Pacific Convergence Zone shifted eastward to the Samoa region, bringing copious amounts of rainfall to the region. Overall, rainfall over the Samoa area for the next few months should be average to slightly above average, but high month-to-month variability is expected. Trade winds should continue to dominate the flow in eastern Micronesia (Pohnpei and eastward), and keep rainfall average to slightly below average for the remainder of the year. The westward spread of cooler equatorial SSTs will reduce equatorial rainfall east of 145°E. Residents of Kapingamarangi should likely begin to conserve water. Monsoon and storm activity will be more prevalent in western Micronesia, and these areas will see average to slightly above average rainfall. Chuuk and the Marianas will have near average rainfall, with high month-to-month variability. The easterly trade winds will keep sea levels above normal for the next few months in the western Pacific and in the Samoa region.

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